

John Deere WL53 4WD Loader (SN. D100008◆◆◆◆◆◆◆◆100079) Service Repair Technical Manual (TM13256X19)

190GW Wheeled Excavator

OPERATION AND TEST MANUAL

190GW (PIN: 1FF190GW_ _E051001-)

TM13247X19 06MAR15 (ENGLISH)

For complete service information also see:

190GW Wheeled Excavator (PIN: 1FF190GW_ _E051001-)	TM13248X19
JDLINK (MTG) Technical Manual	TM114519



John Deere Construction and Forestry

Covers: WL53,1YNWL53***D100008◆◆◆◆◆◆◆◆100079)

Type: Service Manual

Language: English

Pages: 292

Format: PDF

Features: Bookmarked, searchable, printable

Compatibility: Windows/Mac/Tablet/Mobile

This service manual contains important information for the maintenance, troubleshooting and servicing of the **John Deere WL53 4WD Loader (SN. D100008◆◆◆◆◆◆◆◆◆◆100079) Service Repair Technical Manual (TM13256X19)**

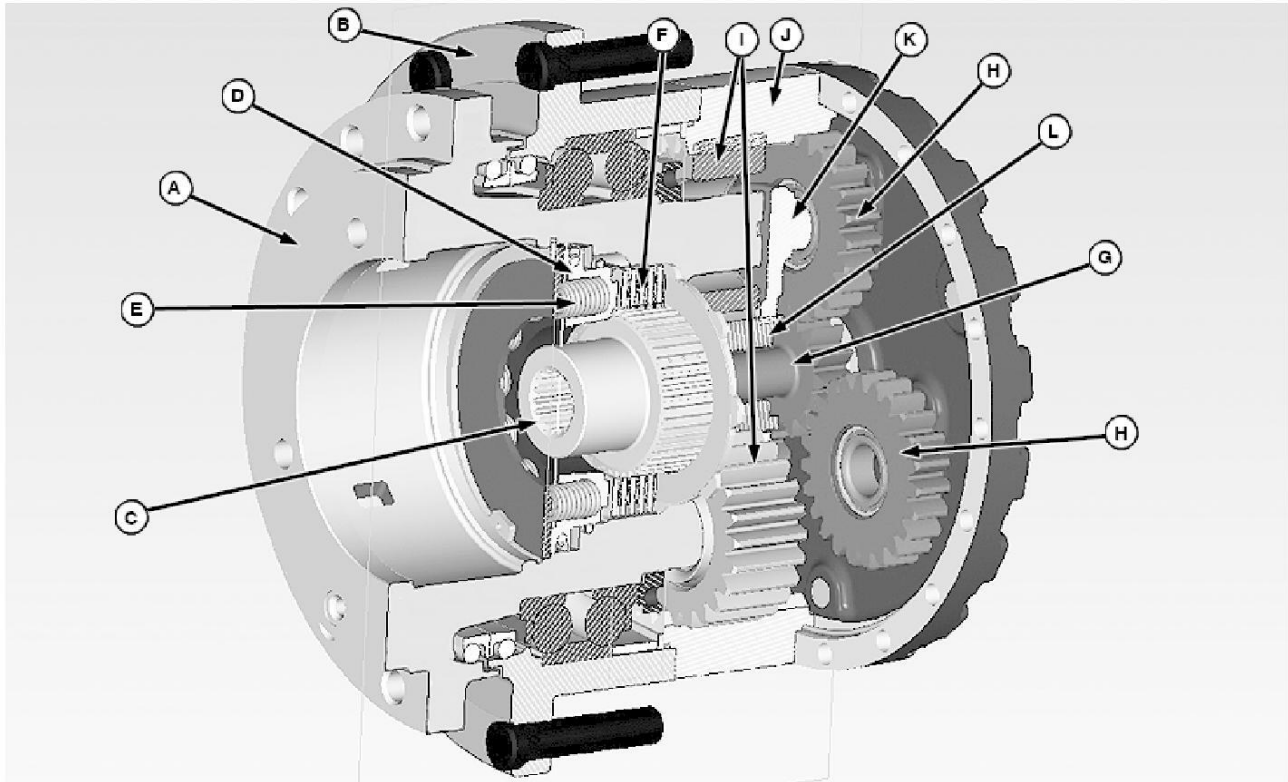
In this manual you will find detailed specifications, illustrations, schematics, diagrams and step-by-step procedures to properly service and diagnose the machine to the manufacturer's standards.

Contents:

- General Information
- Specifications
- Serial Number Location
- Engine Specifications
- Engine Diagnostics
- Engine Tests and Adjustments
- Engine Repair
- Power Train
- Transmission
- Axles
- Differential
- PTO
- Hydraulic System
- Electrical System
- Electrical Tests and Diagnostics
- Wiring Diagram / Schematic
- Ignition and Charging
- Steering
- Brakes
- Wheels
- Operator's Platform
- Body Panels
- Disassembly and Assembly
- Diagnostics, Tests and Adjustments
- Troubleshooting
- and much more...

Please note this manual is in **downloadable PDF format only**. If you have any questions about this product or would like to request sample pages, please contact us and reference the product name or SKU.

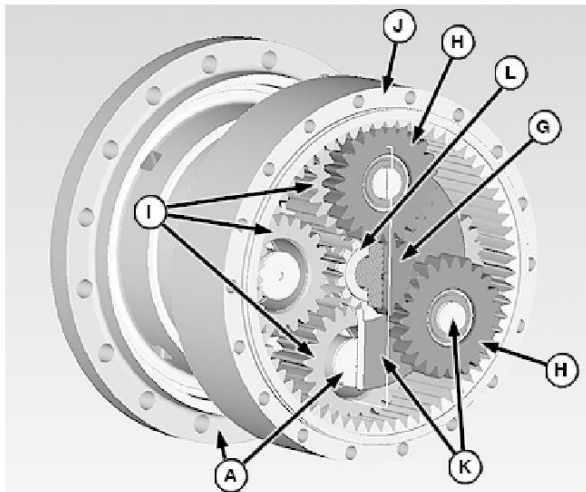
Final Drive—Hydraulic—Theory of Operation



N91484-UN: Final Drive Cutaway

LEGEND:**A-Carrier Hub****B-Wheel Hub****C-Park Brake Hub****D-Park Brake Piston****E-Park Brake Springs****F-Park Brake Disks and Plates****G-Sun Gear and Shaft****H-Outer Planet Gears****I-Inner Planet Gears****J-Ring Gear****K-Outer Carrier****L-Inner Sun Gear**

The power train contains a hydrostatic pump, four variable displacement hydrostatic motors, and four planetary final drives. The final drive assembly uses a set of gears to reduce the speed of the hub from the speed of the hydraulic motors. The hydrostatic motors input power to the final drives. The rotation of the motor output shaft determines the forward and reverse travel and speed. The final drive assembly reduces the rotational speed and increases the torque available at the wheel.



N91485-UN: Final Drive Gears Cutaway

LEGEND:**A-Carrier Hub****G-Sun Gear and Shaft****H-Outer Planet Gears****I-Inner Planet Gears****J-Ring Gear****K-Outer Carrier****L-Inner Sun Gear**

The carrier hub (A) is stationary. The wheel hub (B) rotates at the wheel speed. Rotational power from the motor is transferred from the splined motor output shaft to the park brake hub (C). When the multi-function lever is moved out of Park, charge pressure moves piston (D) and releases spring force (E). The park brake disks (F) are then allowed to spin freely. The park brake hub is splined to the outer sun gear shaft (G). The outer sun gear rotates at the same speed as the wheel motor. The sun gear drives the outer planet gears (H). The teeth on both the outer planet gears (H) and the inner planet gears (I) mesh with the ring gear (J). The hubs on the outer planet gears are attached to the outer carrier (K). The outer carrier is splined to the inner sun gear (L). The hubs on the inner planet gears are mounted to the stationary carrier hub (A). The interaction of the sun gears, planet gears, carriers, and outer ring gear cause the ring gear speed to operate much slower than the hydrostatic wheel motor. The wheel hub (B) moves at the same speed as the ring gear (J).

the inner sun gear (L). The teeth on the inner planet gears (I) mesh with the inner sun gear (L). The hubs on the inner planet gears are mounted to the stationary carrier hub (A). The interaction of the sun gears, planet gears, carriers, and outer ring gear cause the ring gear speed to operate much slower than the hydrostatic wheel motor. The wheel hub (B) moves at the same speed as the ring gear (J).

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